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(54) Title: **METHODS FOR PRESERVING NUCLEATED MAMMALIAN CELLS**

(57) Abstract: Methods and compositions are provided for increasing the survival of nucleated mammalian cells following drying and rehydration. The methods include introducing a disaccharide such as trehalose into said cells, optionally including heat shock proteins, apoptosis inhibitors, and arbutin, drying said cells, and rehydrating them. The invention further provides nucleated mammalian cells that have increased capacity to survive, divide and, in some cases, differentiate, following drying and rehydration. The cells comprise a disaccharide and one or more of the following: a heat shock protein, an apoptosis inhibitor, and arbutin.

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